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PATENTS  
Docket No. NaPro-2 CON

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Kmiec et al.  
Application No.: 10/672,735 Confirmation No.: 8506  
Filed : September 26, 2003  
For : GENOMICS APPLICATIONS FOR MODIFIED  
OLIGONUCLEOTIDES  
Group Art Unit : 1645

Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR  
INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith is an Information Disclosure Statement in the above-identified application. This Statement is submitted:

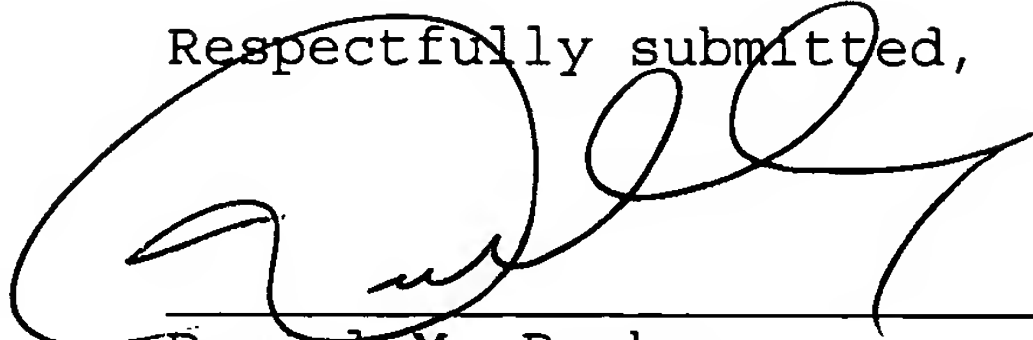
- ☐ within three months of the application filing date;
- ☒ more than three months from the application filing date but before the mailing date of the first Office Action on the merits.

In accordance with 37 C.F.R., § 1.97, submission of this Statement requires no fee. However, if for any reason a fee is due, the Director is hereby authorized to charge payment of any fees required in connection with this Information Disclosure Statement to Deposit Account

No. 06-1075. A duplicate copy of this letter is transmitted herewith.

5 FEB 2004

Respectfully submitted,



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INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98,  
applicants hereby make the following documents of record in  
the above identified application:\*

U.S. Patents

6,428,964	08/2002	Shuber
6,335,164	01/2002	Kigawa et al.
6,312,914	11/2001	Kardos et al.
6,303,376	10/2001	Glazer
6,303,304	10/2001	Shuber et al.
6,268,490	07/2001	Imanishi et al.
6,255,113	07/2001	Zarling et al.
6,245,565	06/2001	Dayn
6,200,812	03/2001	Pati et al.

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\* Applicants reserve the right to challenge the status  
of any of the cited documents as prior art.

6,174,683	01/2001	Hahn et al.
6,159,686	12/2000	Kardos et al.
6,150,516	11/2000	Brenner et al.
6,136,601	10/2000	Meyer, Jr. et al.
6,107,545	08/2000	Mahajan
6,074,853	06/2000	Pati et al.
6,043,060	03/2000	Imanishi
6,010,907	01/2000	Kmiec et al.
5,985,557	11/1999	Prudent et al.
5,965,427	10/1999	Dolgano et al.
5,965,361	10/1999	Kigawa et al.
5,948,653	09/1999	Pati et al.
5,929,043	07/1999	Dayn
5,928,870	07/1999	Lapidus et al.
5,912,340	06/1999	Kutyavin et al.
5,891,656	04/1999	Zarling et al.
5,888,983	03/1999	Kmiec et al.
5,871,984	02/1999	Kmiec
5,776,744	07/1998	Glazer et al.
5,763,240	06/1998	Zarling et al.
5,760,012	06/1998	Kmiec et al.
5,756,325	05/1998	Kmiec
5,736,410	04/1998	Zarling et al.
5,719,023	02/1998	Zarling et al.
5,698,397	12/1997	Zarling et al.
5,674,698	10/1997	Zarling et al.
5,670,325	09/1997	Lapidus et al.
5,670,316	09/1997	Sena et al.
5,565,350	10/1996	Kmiec
5,506,098	04/1996	Zarling et al.
5,468,629	11/1995	Calhoun
5,432,272	07/1995	Benner
5,273,881	12/1993	Sena et al.
5,223,414	06/1993	Zarling et al.

4,888,274	12/1989	Radding et al.
2002/0090361	07/2002	Zarling et al.
2002/0061530	07/2002	Zarling et al.
2002/0032530	05/2002	Belotserkovskii et al.
2001/0044107	03/2002	Pati et al.

#### Foreign Patents

WO 02/10457	02/2002	WO
WO 02/10364	02/2002	WO
WO 01/92512	12/2001	WO
WO 01/73002	10/2001	WO
WO 00/66604	11/2000	WO
WO 00/56748	09/2000	WO
WO 00/50748	08/2000	WO
WO 99/14226	03/1999	WO
WO 98/39352	09/1998	WO
WO 98/08975	03/1998	WIPO
EP 0 799 897	10/1997	EPO
WO95/18236	06/1995	WIPO
EP 0 687 738	02/1995	EPO
WO 94/03639	02/1994	WIPO
WO 93/22443	11/1993	WIPO
WO 93/05178	03/1993	WIPO
WO 93/05177	03/1993	WIPO
WO 92/08791	05/1992	WIPO
WO 91/17267	11/1991	WIPO
EP 0 322 311	12/1988	EPO
63-109781	05/1988	Japan
WO 87/01730	03/1987	WIPO

#### Other Documents

Angov, et al., "The RecA Gene From the Thermophile *Thermus Aquaticus* YT-1: Cloning, Expression and Characterization", *Journal of Bacteriology*, pp. 1405-1412, Mar. 1994.

Anonymous, "Gene Characterization Kits," *Stratagene Catalog*: p. 39 (1988).

Ascenzioni et al., "Mammalian Artificial Chromosomes - Vectors for Somatic Gene Therapy," *Cancer Letters* vol. 118 no. 2: pp. 135-142 (1997).

Baer et al., "Coping with Kinetic and Thermodynamic Barriers: RMCE, and Efficient Strategy for the Targeted Integration of Transgenes," *Current Opinion in Biotechnology* vol. 12: pp. 473-480 (2001).

Belotserkovskii et al., "DNA Hybrids Stabilized by Heterologies," *Biochemistry* vol. 38: pp. 10785-10792 (1999).

Belovsterkovskii et al., "Peptide Nucleic Acid (PNA) Facilitates Multistranded Hybrid Formation between Linear Double-Stranded DNA Targets and RecA Protein-Coated Complementary Single-Stranded DNA Probes," *Biochemistry* vol. 41: pp. 3686-3692 (2002).

Bianco et al., "RecA Protein," *Encyclopedia of Life Sciences*, MacMillan Reference Ltd: pp. 1-11 (20 November 1998).

Blake et al., "DNA Sequence of Recombinase-Binding Sites Can Determine Xer Site-Specific Recombination Outcome," *Molecular Microbiology* vol. 23 no. 2: pp. 387-398 (1997).

Brenner et al., "In vitro Cloning of Complex Mixtures of DNA on Microbeads: Physical Separation of Differentially Expressed cDNAs," *Proc. Natl. Acad. Sci. USA* vol. 97 no. 4: pp. 16650-16670 (2000).

Brune et al., "Reviews: Forward with BACs; New Tools for Herpesvirus Genomics," *Trends in Genetics* vol. 16 no. 6: pp. 254-259 (2001).

Bryant, et al., "On the mechanism of renaturation of complementary DNA strands by the recA protein of *Escherichia coli*", *Proc. Natl. Acad. Sci. USA*, 82:297 (1985)

Cassuto, et al., "Partial purification of an activity from human cells that promotes homologous pairing and the formation of heteroduplex DNA in the presence of ATP", *Mol. Ge. Genet.*, 208:10 (1987)

Cheng, et al., "RecA-Directed Hybridization of Psoralen-Monoadducted DNA oligonucleotides to Duplex Targets," in *Photochemical Probes in Biochemistry* (P.E. Nielsen, ed.), pp. 169-177 (1989).

Cheng, et al., "Use of Psoralen-modified oligonucleotides to Trap Three-stranded RecA-DNA Complexes and Repair of These Cross-linked Complexes by ABC Excinuclease." *J. Biol. Chem.* 263:15110 (1988).

Choi et al., "Construction of a Bacterial Artificial Chromosome Library," *Methods in Molecular Biology* vol. 175: pp. 57-68 (2001).

Chow, et al., "Ionic Inhibition of Formation of RecA Nucleoprotein Networks Blocks Homologous Pairing", *PNAC*, vol. 82, pp. 5646-5650, Sep. 1985

Cox et al., "recA Protein of *Escherichia Coli* Promotes Branch Migration, a Kinetically Distinct Phase of DNA Strand Exchange," *Proc. Natl. Acad. Sci. USA* vol. 78: p. 3433 (1981).

Cox, et al., "Enzymes of General Recombination" *Ann. Rev. Biochem.* 56:229-262 (1987).

D'Amours et al., "The MRE11 Complex: At the Crossroads of DNA Repair and Checkpoint Signalling," *Nature Reviews* vol. 3: pp. 317-327 (May 2002).

Demidov et al., "Kinetics and Mechanism of the DNA Double Helix Invasion by Pseudocomplementary Peptide Nucleic Acids," *Proc. Natl. Acad. Sci. USA* vol. 99 no. 9: pp. 5953-5958 (April 30, 2002).

Dervan, Peter B., "Design of Sequence-Specific DNA-Binding Molecules." *Science*, vol. 232 (Apr. 25, 1986), pp. 464-471.

Di Capua, et al., "Characterization of complexes between recA Protein and Duplex DNA by Electron Microscopy," *J. Mol. Biol.* 157:87-103 (1982)

Dreyer, et al., "Sequence-specific cleavage of single-stranded DNA: Oligodeoxynucleotide-EDTA-Fe(II)", *Proc. Natl. Acad. Sci. USA*, 82:968 (1985)

Dubertret et al., "Single-Mismatch Detection Using Gold-Quenched Fluorescent Oligonucleotides," *Nature Biotechnology* vol. 19: pp. 365-370 (2001).

Eisen, et al., "A recombinase from *Drosophila melanogaster* embryos", *Proc. Natl. Acad. Sci. USA*, 85:7481 (1988)

Eriksson et al., "PNA-Nucleic Acid Complexes. Structure, Stability and Dynamics," *Quarterly Reviews of Biophysics* vol. 29 no. 4: pp. 369-394 (1996).

Fabb et al., "Yeast Artificial Chromosome Vectors," *Molecular and Cell Biology of Human Gene Disorders Therapeutics* vol. 5: pp. 104-124 (1995).

Fan et al., "Parallel Genotyping of Human SNPs Using Generic High-Density Oligonucleotide Tag Arrays," *Genome Research* vol. 10: pp. 853-860 (2000).



Faruqi et al., "Peptide nucleic acid-targeted mutagenesis of a chromosomal gene in mouse cells", *Proc. Natl. Acad. Sci. USA*, 96: 1398-1403 (1998)

Feng et al., "Site-Specific Chromosomal Integration in Mammalian Cells: Highly Efficient CRE Recombinase-Mediated Cassette Exchange," *Journal of Molecular Biology* vol. 292: pp. 779-785 (1999).

Ferrin et al., "Selective Cleavage of Human DNA: RecA-Assisted Restriction Endonuclease (RARE) Cleavage," *Science* vol. 254: pp. 1494-1497 (1991).

Ferrin et al., "Sequence-Specific Ligation of DNA Using RecA Protein," *Proc. Natl. Acad. Sci. USA* vol. 95: pp. 2152-2157 (March 1998).

Ferrin, et al., "Long-range mapping of gaps and telomeres with RecA-assisted restriction endonuclease (RARE) cleavage", *Nature Genetics*, vol. 6, pp.379-383, Apr. 1994

Francois, et al., "Inhibition of Restriction Endonuclease Cleavage via Triple helix Formation by Homopyrimidine Oligonucleotides." *Biochem*, 28:9617-9619 (1989).

Francois, et al., "Sequence-specific recognition and cleavage of duplex DNA via triple-helix formation by oligonucleotides covalently linked to a phenanthroline-copper chelate." *Proc. Natl. Acad. Sci. USA* 86:9702-9706 (1989).

Freitag, et al., "Affinity Chromatography of RecA Protein and RecA Nucleoprotein Complexes on RecA Protein-Agarose Columns," *J. Biol. Chem.* 263(36):19525-19534 (1988)

Fujisawa, et al., "Sequence of the T4 recombination gene, *uvrX*, and its comparison with that of the *recA* gene of *Escherichia coli*", *Nucleic Acids Res.*, 13:7473 (1985)

Fujiyama, et al., "Cloning and structural analyses of hepatitis B virus DNAs, subtype *adr*", *Nucleic Acids Research*, 11:4601 (1983)

Galibert, et al., "Nucleotide sequence of the hepatitis B virus genome (subtype *ayw*) cloned in *E. coli*", *Nature*, 281:646 (1979)

Gamper et al., "Evidence for a Four-Strand Exchange Catalyzed by the RecA Protein," *Biochemistry* vol. 39: pp. 15272-15281 (2000).

Ganea, et al., "Characterization of an ATP-Dependent DNA Strand Transferase from Human Cells", *Mol. Cell Biol.*, 7:3124 (1987)

Golub, et al., "Inhibition of RNA polymerase II transcription by oligonucleotide-RecA protein filaments targeted to promoter sequences", *Proc. Natl. Acad. Sci., USA*, vol. 90, pp. 7186-7190, Aug. 1993

Golub, et al., "Joints Formed by RecA Protein From Oligonucleotides and Duplex DNA Block Initiation and Elongation of Transcription", *Nucleic Acids Research*, vol. 20, No. 12, pp. 3121-3125, 1992.

Gonda, et al., "By Searching Processively RecA Protein Pairs DNA Molecules That Share a Limited Stretch of Homology", *Cell*, 34:647-654 (1983).

Gonda, et al., "The Mechanism of the Search for Homology Promoted by RecA Protein", *The Journal Of Biological Chemistry*, vol. 261, No. 28, pp. 13087-13096, Oct. 1986

Good et al., "Review: Progress in Developing PNA as a Gene-Targeted Drug," *Antisense Nucleic Acid Drug Development* vol. 7 no. 4: pp. 431-437 (1997).

Gorman et al., "Site-Specific Gene Targeting for Gene Expression in Eukaryotes," *Current Opinion in Biotechnology* vol. 11: pp. 455-460 (2000).

Griffith, et al., "Intercalating Drugs Markedly Affect the Ability to the *E. coli* RecA Protein to Insert Small Primers into Homologous Duplex DNA," *J. Cell Biochem.* 13E:287(Suppl.) (1989).

Griffith, et al., "RecA Protein Rapidly Crystallizes in the Presence of Spermidine: A Variable Step in its Purification and Physical Characterization", *Biochemistry*, 24:158 (1985)

Halbrook, et al., "Purification and Characterization of a DNA-pairing and Strand Transfer Activity from Mitotic *Saccharomyces cerevisiae*", *Journal of Biological Chemistry*, 264:21403 (1989)

Hanvey, et al., "Site-specific inhibition of EcoRI restriction/modification enzymes by a DNA triple helix." *Nucleic Acids Res.* 18(1):157 (1989)

Henegariu et al., "Custom Fluorescent-Nucleotide Synthesis as an Alternative Method for Nucleic Acid Labeling," *Nature Biotechnology* vol. 18: pp. 345-348 (2000).

Honigberg et al., "The Pairing Activity of Stable Nucleoprotein Filaments Made from recA Protein, Single-Stranded DNA, and Adenosine 5'-( $\gamma$ -Thio)triphosphate," *Journal of Biological Chemistry* vol. 260 no. 21: pp. 11845-11851 (September 25, 1985).

Honigberg, et al., "Ability of RecA Protein to Promote a Search for Rare Sequences in Duplex DNA", *PNAC*, vol. 83, pp. 9586-9590, Dec. 1986

Hsieh, et al., "Formation of Joint DNA Molecules by Two Eukaryotic Strand Exchange Proteins Does Not Require Melting of a DNA Duplex", *J. Biol. Chem.*, 264:5089 (1989)

Hsieh, et al., "Pairing of homologous DNA sequences by proteins: evidence for three-stranded DNA," *Genes & Development*, 4:1951 (1990).

Hsieh, et al., "Partial Purification and Characterization of a Recombinase from Human Cells", *Cell*, 44:885 (1986)

Hsieh, et al., "The synapsis event in the homologous pairing of DNAs: RecA recognizes and pairs less than one helical repeat of DNA", *Proc. Natl. Acad. Sci. USA*, 89:6492-6496 (1992)

Huxley, "Review: Mammalian Artificial Chromosomes: A New Tool for Gene Therapy," *Gene Therapy* vol. 1 no. 1: pp. 7-12 (1994).

Hyrup et al., "Review Article: Peptide Nucleic Acids (PNA): Synthesis, Properties and Potential Applications," *Bioorganic and Medicinal Chemistry* vol. 4 no. 1: pp. 5-23 (1996).

Izvol'sky et al., "Sequence-Specific Protection of Duplex DNA Against Restriction and Methylation Enzymes by Pseudocomplementary PNAs," *Biochemistry* vol. 39: pp. 10908-10913 (2000).

Jayasena, et al., "Compliment Stabilized D-loop RecA-catalyzed Stable Pairing of Linear DNA Molecules at Internal Sites", *J. Mol. Biol.*, pp. 1015-1024 (1993)

Kato, et al., "RecA Protein From an Extremely Thermophilic Bacterium, *Thermus Thermophilus* HB8", *J. Biochem*, vol. 114, pp. 926-929, 1993.

Kawashima, et al., "Functional Domains of *Escherichia coli* RecA Protein Deduced From the Mutational Sites in the Gene", *Mol. Gen. Genet.*, vol. 193, pp. 288-292, 1984.

Kenne, et al., "A DNA-recombinogenic activity in human cells", *Nucleic Acids Research*, 12:3057 (1984)

Kido, et al., "*Escherichia coli* RecA Protein Modified with a Nuclear Location Signal Binds to Chromosomes in Living Mammalian Cells," *Experimental Cell Res.* 198:107-114 (1992).

Kirk et al., "Single Nucleotide Polymorphism Seeking Long Term Association with Complex Disease," *Nucleic Acids Research* vol. 30 no. 15: pp. 3295-3311 (2002).

Kirkpatrick, et al., "RecA Protein Promotes Rapid RNA-DNA Hybridization in Heterogeneous RNA Mixtures", *Nucleic Acids Research* pp. 4347-4353

Kirkpatrick, et al., "RNA-DNA Hybridization Promoted by *E.coli* RecA Protein", *Nucleic Acid Research*, vol. 20, No. 16, pp. 4339-4346, (1992)

Kmiec, et al., "Homologous Pairing of DNA Molecules by Ustilago Rec1 Is Promoted by Sequences of Z-DNA", *Cell*, 29:367-374 (1986)

Kmiec, et al., "Homologous Pairing of DNA Molecules Promoted by a Protein from Ustilago", *Cell*, vol. 29 pp. 367-374 (1982).

Kmiec, et al., "Homologous Pairing Promoted by Ustilago Protein", Cold Spring Harbor Symposia on Quantitative Biology, Volume XLIX, 675-679, (1984)

Kmiec, et al., "Synapsis Promoted by Ustilago Rec1 Protein", *Cell*, vol. 36, pp. 593-598, Mar. 1984

Knight et al., "Tyrosine 264 in the recA Protein from *Escherichia coli* Is the Site of Modification by Photoaffinity Label 8-Azido-adenosine", *J. Biol. Chem.* 260 (18):10185-91, Aug. 25, 1985

Kokoris et al., "High-Throughput SNP Genotyping with the Masscode System," *Molecular Diagnosis* vol. 5 no. 4: pp. 329-340 (2000).

Kolodner, et al., "Purification and characterization of an activity from *Saccharomyces cerevisiae* that catalyzes homologous pairing and strand exchange", *Proc. Natl. Acad. Sci. USA*, 84:5560 (1987)

Koob, et al., "RecA-AC: single-site cleavage of plasmids and chromosomes at any predetermined restriction site", *Nucleic Acids Research*, vol. 20, No. 21, pp. 5831-5836, 1992.

Kowalczykowski, et al., "DNA-strand exchange promoted by RecA protein in the absence of ATP: Implications for the mechanism of energy transduction in protein-promoted nucleic acid transactions", *Proc. Natl. Acad. Sci. USA*, vol. 92, pp.3478-3482

Kowalczykowski, Stephen C., "Biochemistry of Genetic Recombination: Energetics and Mechanism of DNA Strand Exchange," *Annu. Rev. Biophys. Chem.*, vol. 20, pp. 539-575 (1991).

Kricka et al., "Comparison of 5-Hydroxy-2, 3-Dihydrophthalazine-1, 4-Dione and Luminol as Co-Substrates for Detection of Horseradish Peroxidase in Enhanced Chemiluminescent Reactions," *Journal of Immunoassay* vol. 17 no. 1: pp. 67-83 (1996).

Kuramitsu, et al., "A Large-Scale Preparation and Some Physicochemical Properties of RecA Protein", *J. Biochem*, vol. 90, pp. 1033-1045, 1981.

Kwok, Pui-Yan, "Methods for Genotyping Single Nucleotide Polymorphisms," *Annu. Rev. Genomics Hum. Genet.* vol. 2: pp. 235-258 (2001).

Lander et al., "The Chipping Forecast," Supplement to *Nature Genetics* vol. 21 no. 1: pp. 1-60 (January 1999).

Langer et al., "A Genetic Screen Identifies Novel Non-Compatible IoxP Sites," *Nucleic Acids Research* vol. 30: pp. 3067-3077 (2002).

Larin et al., "Review: Advances in Human Artificial Chromosome Technology," *Trends in Genetics* vol. 18 no. 6: pp. 313-319 (2002).

Lawrence, et al., "A Fluorescence In Situ Hybridization Approach for Gene Mapping and the Study of Nuclear Organization", *Genome Analysis*, 1:1 (1990)

Leahy, et al., "Topography of the Interaction of recA Protein with Single-stranded Deoxyoligonucleotides," *J. Biol. Chem.*, 261:6954 (1986).

Lohse et al., "Double Duplex Invasion by Peptide Nucleic Acid: A General Principle for Sequence-Specific Targeting of Double-Stranded DNA," *Proc. Natl. Acad. Sci. USA* vol. 96 no. 21: pp. 11804-11808 (October 12, 1999).

Lovett, et al., "Purification of a RecA Protein Analogue from *Bacillus subtilis*," *J. Biol. Chem.*, vol. 260, No. 6 pp. 3305-3313 (1985)

Lowenhaupt, et al., "*Drosophila melanogaster* Strand Transferase", *J. Biol. Chem.*, 264:20568 (1989)

Lundqvist et al., "Influence of Different Luminols on the Characteristics of the Chemiluminescence Reaction in Human Neutrophils," *J. Biolumin. Chemilumin.* vol. 10 no. 6: pp. 353-359 (1995).

Madiraju et al., "Properties of a Mutant recA-Encoded Protein Reveal a Possible Role for *Escherichia coli* recF-Encoded Protein in Genetic Recombination," *Proc. Natl. Acad. Sci. USA* vol. 85 no. 18: pp. 6592-6596 (1988).

Maher III, et al., "Inhibition of DNA Binding Proteins by Oligonucleotide-Directed Triple Helix Formation," *Science* 245:725-730 (1989).

Makino, et al., "Monoclonal Antibodies with Specific Effects on Partial Activities of recA Protein of *Escherichia coli*", *J. Biol. Chem.*, 260, 15402, 1985

McCarthy, et al., "Sensitive homologous recombination strand-transfer assay: Partial purification of a *Drosophila melanogaster* enzyme and detection of sequence effects on the strand-transfer activity of RecA protein", *Proc. Natl. Acad. Sci. USA*, 85:5854 (1988)

McEntee, et al., "Binding of the recA Protein of *Escherichia coli* to Single- and Double-Stranded DNA", *J. Biol. Chem.*, 256:8835-8844 (1981)

Menetski, et al., "Enhancement of *Escherichia coli* RecA Protein Enzymatic Function by dATP," *Biochem.* 28:5871-5881 (1989)

Moore, et al., "Purification and Characterization of a Protein from Human Cells Which Promotes Homologous Pairing of DNA", *J. Biol. Chem.*, 19:11108-11117 (1990)

Moreau, et al., "Rec-A Protein-promoted Cleavage of Lex-A Repressor in the Presence of ADP and Structural Analogues of Inorganic Phosphate, the Fluoride Complexes of Aluminum and Beryllium", *J. Biol. Chem.*, 264:2302-2306 (1989)

Morriscal, et al., "Stabilization of recA Protein-ssDNA Complexes by the Single-Stranded DNA Binding Protein of *Escherichia coli*", *Biochemistry*, 29:837 (1990)

Moser, et al., "Sequence-Specific Cleavage of Double helical DNA by Triple Helix Formation", *Science* 238:645-650 (1987)

Nielsen et al., "An Introduction to Peptide Nucleic Acid," *Current Issues in Molecular Biology* vol. 1 no. 2: pp. 89-104 (1999).

Nielsen et al., "Peptide Nucleic Acids: On the Road to New Gene Therapeutic Drugs," *Pharmacology and Toxicology* vol. 86: pp. 3-7 (2000).

Nielsen, "DNA Analogues with Nonphosphodiester Backbones," *Annu. Rev. Biophys. Biomol. Struct.* vol. 24: pp. 167-183 (1995).

Nielsen, "Peptide Nucleic Acid: A Versatile Tool in Genetic Diagnostics and Molecular Biology," *Current Opinion in Biotechnology* vol. 12 no. 1: pp. 16-20 (2001).

Nielsen, "Targeting Double Stranded DNA with Peptide Nucleic Acid (PNA)," *Current Medicinal Chemistry* vol. 8 no. 5: pp. 545-550 (2001).

Norden et al., "Base Orientation of Second DNA in Rec-A-DNA Filaments", *The Journal of Biological Chemistry*, 273(25): 15682-15686 (1998)

Peterson et al., "Transgenic Mice Containing a 248-Kb Yeast Artificial Chromosome Carrying the Human Beta-Globin Locus Display Proper Developmental Control of Human Globin Genes," *Proc. Natl. Acad. Sci. USA* vol. 90 no. 16: pp. 7593-7597 (August 15, 1993).

Peterson et al., "Use of Yeast Artificial Chromosomes (Yacs) for Studying Control of Gene Expression: Correct Regulation of the Genes of a Human Beta-Globin Locus YAC Following Transfer to Mouse Erythroleukemia Cell Lines," *Proc. Natl. Acad. Sci. USA* vol. 90 no. 23: pp. 11207-11211 (December 1, 1993).



Podyminogin, et al., "Sequence-Specific Covalent Modification of DNA by Cross-Linking Oligonucleotides. Catalysis by RecA and Implication for the Mechanism of Synaptic Joint Formation", *Biochemistry*, vol. 34, pp. 13098-13108, 1995

Pusch et al., "MALDI-TOF Mass Spectrometry-Based SNP Genotyping," *Pharmacogenomics* vol. 3 no. 4: pp. 537-548 (2002).

Radding, Charles M., "Helical Interactions in Homologous Pairing and Strand Exchange Driven by RecA Protein", *The Journal of Biological Chemistry*, vol. 266, No. 9, pp. 5355-5358, Mar. 1991.

Radding, Charles M., "Helical RecA Nucleoprotein Filaments Mediate Homologous Pairing and Strand Exchange", *Biochem. Biophys. Acta.*, 1008 (1989), pp. 131-145.

Radding, et al., "Homologous Pairing and Strand Exchange in Genetic Recombination." *Ann. Rev. Genet.* 16:405 (1983) 25:1990.

Revet, et al., "Homologous DNA Targeting with RecA Protein-coated Short DNA Probes with Electron Microscope Mapping on Linear Duplex Molecules", *J. Mol. Biol.*, vol. 232, pp. 779-791, 1993

Rigas, et al., "Rapid Plasmid Library Screening Using RecA Coated Biotinylated Probes", *PNAC*, vol. 83, pp. 9591-9595, Dec. 1986

Roca, et al., "The RecA Protein: Structure and Function," *Crit. Rev. Biochem. Molec. Biol.* 25:415 (1990).

Roche Diagnostics GmbH, "Classical Structural Genomics," <http://www.roche-applied-science.com/usa/3327175B.pdf>

Roche Diagnostics GmbH, "recA Protein," Cat. No. 1 449 567, Cat. No. 1 449 575, Version 3 (September 1999).

Sena, et al., "Targeting in Linear DNA Duplexes With Two Complementary Probe Strands for Hybrid Stability", *Nature Genetics*, vol. 3, pp. 365-372 (1993)

Shah et al., "Multiple BCR-ABL Kinase Domain Mutation Confer Polyclonal Resistance to the Tyrosine Kinase Inhibitor Imatinib (STI571) in Chronic Phase and Blast Crisis Chronic Myeloid Leukemia," *Cancer Cell* vol. 2: pp. 117-125 (August 2002).

Shibata et al., "Homologous Genetic Recombination as an Intrinsic Dynamic Property of a DNA Structure Induced by RecA/Rad51-Family Proteins: A Possible Advantage of DNA over RNA as Genomic Material," *Proc. Natl. Acad. Sci. USA* vol. 98 no. 15: pp. 8425-8432 (July 17, 2001).

Shibata, et al., "Purification of RecA Protein From *Escherichia coli*", *Method in Enzymology*, vol. 100, pp. 197-209.

Shibata, et al., "Purified *Escherichia coli* recA Protein catalyzed homologous pairing of superhelical DNA and single-stranded fragments." *Proc. Natl. Acad. Sci. USA* 76:1638 (1979).

Shibata, T., et al., "Homologous Pairing in Genetic Recombination", *J. Bio. Chem.*, 256:7557 (1981)

Shinohara et al., "Rad51/RecA Protein Families and the Associated Proteins in Eukaryotes," *Mutation Research* vol. 435: pp. 13-21 (1999).

Shinohara, et al., "Cloning of Human, Mouse and Fission Yeast Recombination Genes Homologous to RAD51 and RecA", *Nature Genetics*, vol. 4, pp. 239-243, Jul. 1993.

Shoemaker et al., "Quantitative Phenotypic Analysis of Yeast Deletion Mutants Using a Highly Parallel Molecular Bar-Coding Strategy," *Nature Genetics* vol. 14 no. 4: pp. 450-456 (1996).

Sluka, et al., "Synthesis of a Sequence-Specific DNA-Cleaving Peptide", *Science*, 238:1129 (1987)

Sugino, et al., "ATP-independent DNA strand transfer catalyzed by protein(s) from meiotic cells of the yeast *Saccharomyces cerevisiae*", *Proc. Natl. Acad. Sci. USA*, 85:3683, (1988)

Syvänen, Ann-Christine, "Accessing Genetic Variation: Genotyping Single Nucleotide Polymorphisms," *Nature: Reviews* vol. 2: pp. 930-942 (December 2001).

Szybalski, Waclaw, "RecA-Mediated Achilles' Heel Cleavage," *Current Opinion in Biotechnology* vol. 8: pp. 75-81 (1997).

Teintze, et al., RecA Assisted Rapid Enrichment of Specific Clones From Model DNA Libraries, *Biochemical and Biophysical Research Communications*, vol. 211, No. 3, pp. 804-811, Jun. 26, 1995.

Thorpe et al., "Enhanced Chemiluminescent Reactions Catalyzed by Horseradish Peroxidase," *Methods in Enzymology* vol. 133: pp. 331-353 (1986).

Tsang, et al., "Networks of DNA and RecA Protein Are Intermediates in Homologous Pairing", *Biochemistry*, vol. 24, pp. 3226-3232, 1985

Usher et al., "Targeting of a Chimeric Oligonucleotide to dsDNA for Site-Specific Gene Repair," *FAESB Journal* vol. 15 no. 4: Abstract No. 435.2, p. A518 (March 2001).

Yoshimura et al., "Cloning and Sequence of the Human RecA-like Gene cDNA," *Nucleic Acids Research* vol. 21 no. 7: p. 1665 (1993).

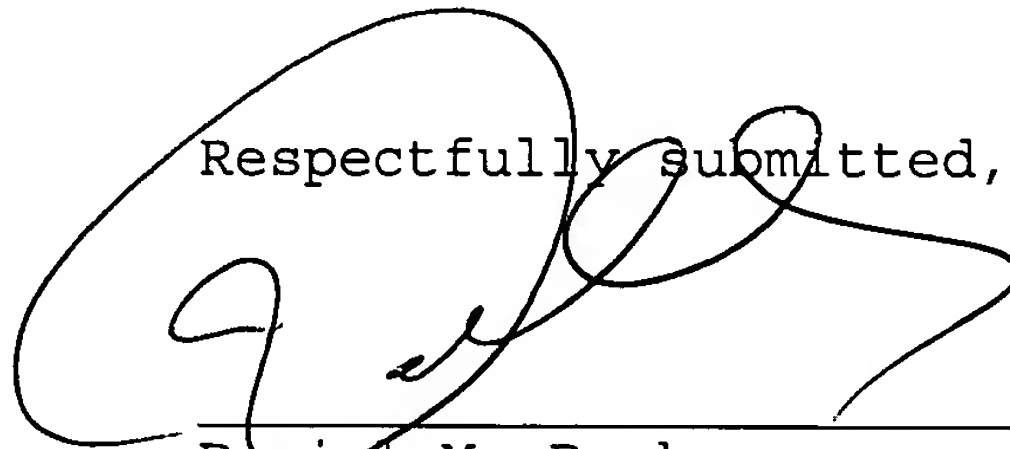


Pursuant to the PTO's waiver of the requirement under 37 CFR 1.98 (a)(2)(i), 1276 OG 55, applicants have not submitted copies of each cited U.S. patent and each U.S. patent application publication. Copies of the aforementioned foreign patent publications and other documents, which are listed on the accompanying Form PTO-1449, are enclosed herewith.

It is respectfully requested that these documents be (1) fully considered by the Patent and Trademark Office during the examination of this application; and (2) printed on any patent that may issue on this application. Applicants request that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully requested.

Respectfully submitted,



Daniel M. Becker  
Registration No. 38,376  
Attorney for Applicants

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			NaPro-2 CON	10/672,735
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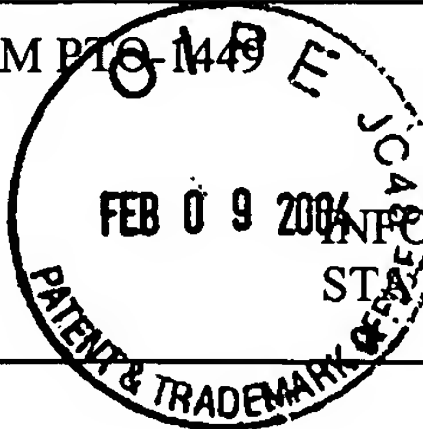
## U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,428,964	08/2002	Shuber			
	6,335,164	01/2002	Kigawa et al.			
	6,312,914	11/2001	Kardos et al.			
	6,303,376	10/2001	Glazer			
	6,303,304	10/2001	Shuber et al.			
	6,268,490	07/2001	Imanishi et al.			
	6,255,113	07/2001	Zarling et al.			
	6,245,565	06/2001	Dayn			
	6,200,812	03/2001	Pati et al.			
	6,174,683	01/2001	Hahn et al.			
	6,159,686	12/2000	Kardos et al.			
	6,150,516	11/2000	Brenner et al.			
	6,136,601	10/2000	Meyer, Jr. et al.			
	6,107,545	08/2000	Mahajan			
	6,074,853	06/2000	Pati et al.			
	6,043,060	03/2000	Imanishi			
	6,010,907	01/2000	Kmiec et al.			
	5,985,557	11/1999	Prudent et al.			
	5,965,427	10/1999	Dolgano et al.			
	5,965,361	10/1999	Kigawa et al.			
	5,948,653	09/1999	Pati et al.			
	5,929,043	07/1999	Dayn			
	5,928,870	07/1999	Lapidus et al.			
	5,912,340	06/1999	Kutyavin et al.			
	5,891,656	04/1999	Zarling et al.			
	5,888,983	03/1999	Kmiec et al.			
	5,871,984	02/1999	Kmiec			
	5,776,744	07/1998	Glazer et al.			
	5,763,240	06/1998	Zarling et al.			

EXAMINER

DATE CONSIDERED

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## U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,760,012	06/1998	Kmiec et al.			
	5,756,325	05/1998	Kmiec			
	5,736,410	04/1998	Zarling et al.			
	5,719,023	02/1998	Zarling et al.			
	5,698,397	12/1997	Zarling et al.			
	5,674,698	10/1997	Zarling et al.			
	5,670,325	09/1997	Lapidus et al.			
	5,670,316	09/1997	Sena et al.			
	5,565,350	10/1996	Kmiec			
	5,506,098	04/1996	Zarling et al.			
	5,468,629	11/1995	Calhoun			
	5,432,272	07/1995	Benner			
	5,273,881	12/1993	Sena et al.			
	5,223,414	06/1993	Zarling et al.			
	4,888,274	12/1989	Radding et al.			
	2002/0090361	07/2002	Zarling et al.			
	2002/0061530	07/2002	Zarling et al.			
	2002/0032530	05/2002	Belotserkovskii et al.			
	2001/0044107	03/2002	Pati et al.			

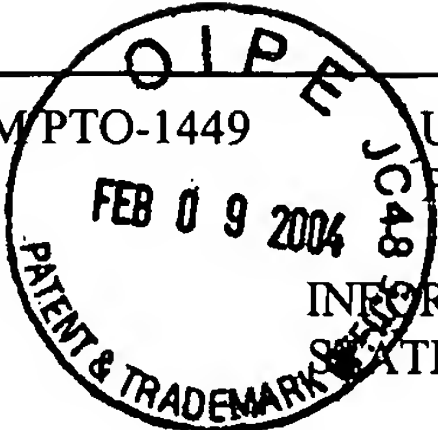
## FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
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	WO 02/10457	02/2002	WO				
	WO 02/10364	02/2002	WO				
	WO 01/92512	12/2001	WO				
	WO 01/73002	10/2001	WO				
	WO 00/66604	11/2000	WO				
	WO 00/56748	09/2000	WO				

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## FOREIGN PATENT DOCUMENTS

	WO 00/50748	08/2000	WO				
	WO 99/14226	03/1999	WO				
	WO 98/39352	09/1998	WO				
	WO 98/08975	03/1998	WIPO				
	EP 0 799 897	10/1997	EPO				
	WO95/18236	06/1995	WIPO				
	EP 0 687 738	02/1995	EPO				
	WO 94/03639	02/1994	WIPO				
	WO 93/22443	11/1993	WIPO				
	WO 93/05178	03/1993	WIPO				
	WO 93/05177	03/1993	WIPO				
	WO 92/08791	05/1992	WIPO				
	WO 91/17267	11/1991	WIPO				
	EP 0 322 311	12/1988	EPO				
	63-109781	05/1988	Japan				
	WO 87/01730	03/1987	WIPO				

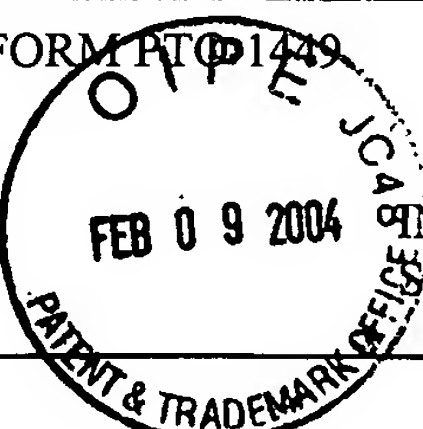
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Angov, et al., "The RecA Gene From the Thermophile Thermus Aquaticus YT-1: Cloning, Expression and Characterization", <i>Journal of Bacteriology</i> , pp. 1405-1412, Mar. 1994.
	Anonymous, "Gene Characterization Kits," <i>Stratagene Catalog</i> : p. 39 (1988).
	Ascenzioni et al., "Mammalian Artificial Chromosomes - Vectors for Somatic Gene Therapy," <i>Cancer Letters</i> vol. 118 no. 2: pp. 135-142 (1997).
	Baer et al., "Coping with Kinetic and Thermodynamic Barriers: RMCE, and Efficient Strategy for the Targeted Integration of Transgenes," <i>Current Opinion in Biotechnology</i> vol. 12: pp. 473-480 (2001).
	Belotserkovskii et al., "DNA Hybrids Stabilized by Heterologies," <i>Biochemistry</i> vol. 38: pp. 10785-10792 (1999).
	Belovsterkovskii et al., "Peptide Nucleic Acid (PNA) Facilitates Multistranded Hybrid Formation between Linear Double-Stranded DNA Targets and RecA Protein-Coated Complementary Single-Stranded DNA Probes," <i>Biochemistry</i> vol. 41: pp. 3686-3692 (2002).
	Bianco et al., "RecA Protein," <i>Encyclopedia of Life Sciences</i> , MacMillan Reference Ltd: pp. 1-11 (20 November 1998).

EXAMINER

DATE CONSIDERED

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

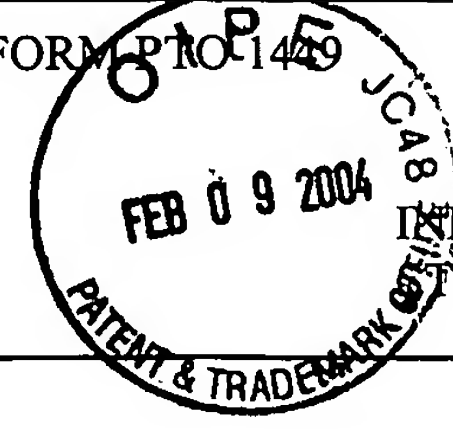
EXAMINER INITIALS	
	Blake et al., "DNA Sequence of Recombinase-Binding Sites Can Determine Xer Site-Specific Recombination Outcome," <i>Molecular Microbiology</i> vol. 23 no. 2: pp. 387-398 (1997).
	Brenner et al., "In vitro Cloning of Complex Mixtures of DNA on Microbeads: Physical Separation of Differentially Expressed cDNAs," <i>Proc. Natl. Acad. Sci. USA</i> vol. 97 no. 4: pp. 16650-16670 (2000).
	Brune et al., "Reviews: Forward with BACs; New Tools for Herpesvirus Genomics," <i>Trends in Genetics</i> vol. 16 no. 6: pp. 254-259 (2001).
	Bryant, et al., "On the mechanism of renaturation of complementary DNA strands by the recA protein of <i>Escherichia coli</i> ", <i>Proc. Natl. Acad. Sci. USA</i> , 82:297 (1985)
	Cassuto, et al., "Partial purification of an activity from human cells that promotes homologous pairing and the formation of heteroduplex DNA in the presence of ATP", <i>Mol. Ge. Genet.</i> , 208:10 (1987)
	Cheng, et al., "RecA-Directed Hybridization of Psoralen-Monoadducted DNA oligonucleotides to Duplex Targets," in <i>Photochemical Probes in Biochemistry</i> (P.E. Nielsen, ed.), pp. 169-177 (1989).
	Cheng, et al., "Use of Psoralen-modified oligonucleotides to Trap Three-stranded RecA-DNA Complexes and Repair of These Cross-linked Complexes by ABC Excinuclease." <i>J. Biol. Chem.</i> 263:15110 (1988).
	Choi et al., "Construction of a Bacterial Artificial Chromosome Library," <i>Methods in Molecular Biology</i> vol. 175: pp. 57-68 (2001).
	Chow, et al., "Ionic Inhibition of Formation of RecA Nucleoprotein Networks Blocks Homologous Pairing", <i>PNAC</i> , vol. 82, pp. 5646-5650, Sep. 1985
	Cox et al., "recA Protein of <i>Escherichia Coli</i> Promotes Branch Migration, a Kinetically Distinct Phase of DNA Strand Exchange," <i>Proc. Natl. Acad. Sci. USA</i> vol. 78: p. 3433 (1981).
	Cox, et al., "Enzymes of General Recombination" <i>Ann. Rev. Biochem.</i> 56:229-262 (1987).
	D'Amours et al., "The MRE11 Complex: At the Crossroads of DNA Repair and Checkpoint Signalling," <i>Nature Reviews</i> vol. 3: pp. 317-327 (May 2002).
	Demidov et al., "Kinetics and Mechanism of the DNA Double Helix Invasion by Pseudocomplementary Peptide Nucleic Acids," <i>Proc. Natl. Acad. Sci. USA</i> vol. 99 no. 9: pp. 5953-5958 (April 30, 2002).
	Dervan, Peter B., "Design of Sequence-Specific DNA-Binding Molecules." <i>Science</i> , vol. 232 (Apr. 25, 1986), pp. 464-471.
	Di Capua, et al., "Characterization of complexes between recA Protein and Duplex DNA by Electron Microscopy," <i>J. Mol. Biol.</i> 157:87-103 (1982)
	Dreyer, et al., "Sequence-specific cleavage of single-stranded DNA: Oligodeoxynucleotide-EDTA-Fe(II)", <i>Proc. Natl. Acad. Sci. USA</i> , 82:968 (1985)
	Dubertret et al., "Single-Mismatch Detection Using Gold-Quenched Fluorescent Oligonucleotides," <i>Nature Biotechnology</i> vol. 19: pp. 365-370 (2001).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.



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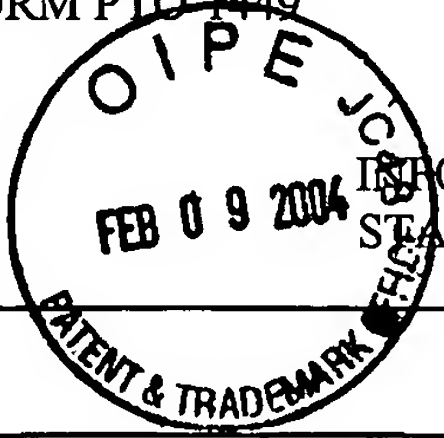
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Eisen, et al., "A recombinase from <i>Drosophila melanogaster</i> embryos", <i>Proc. Natl. Acad. Sci. USA</i> , 85:7481 (1988)
	Eriksson et al., "PNA-Nucleic Acid Complexes. Structure, Stability and Dynamics," <i>Quarterly Reviews of Biophysics</i> vol. 29 no. 4: pp. 369-394 (1996).
	Fabb et al., "Yeast Artificial Chromosome Vectors," <i>Molecular and Cell Biology of Human Gene Disorders Therapeutics</i> vol. 5: pp. 104-124 (1995).
	Fan et al., "Parallel Genotyping of Human SNPs Using Generic High-Density Oligonucleotide Tag Arrays," <i>Genome Research</i> vol. 10: pp. 853-860 (2000).
	Faruqi et al., "Peptide nucleic acid-targeted mutagenesis of a chromosomal gene in mouse cells", <i>Proc. Natl. Acad. Sci. USA</i> , 96: 1398-1403 (1998)
	Feng et al., "Site-Specific Chromosomal Integration in Mammalian Cells: Highly Efficient CRE Recombinase-Mediated Cassette Exchange," <i>Journal of Molecular Biology</i> vol. 292: pp. 779-785 (1999).
	Ferrin et al., "Selective Cleavage of Human DNA: RecA-Assisted Restriction Endonuclease (RARE) Cleavage," <i>Science</i> vol. 254: pp. 1494-1497 (1991).
	Ferrin et al., "Sequence-Specific Ligation of DNA Using RecA Protein," <i>Proc. Natl. Acad. Sci. USA</i> vol. 95: pp. 2152-2157 (March 1998).
	Ferrin, et al., "Long-range mapping of gaps and telomeres with RecA-assisted restriction endonuclease (RARE) cleavage", <i>Nature Genetics</i> , vol. 6, pp.379-383, Apr. 1994
	Francois, et al., "Inhibition of Restriction Endo-nuclease Cleavage via Triple helix Formation by Homopyrimidine Oligonucleotides." <i>Biochem</i> , 28:9617-9619 (1989).
	Francois, et al., "Sequence-specific recognition and cleavage of duplex DNA via triple-helix formation by oligonucleotides covalently linked to a phenanthroline-copper chelate." <i>Proc. Natl. Acad. Sci. USA</i> 86:9702-9706 (1989).
	Freitag, et al., "Affinity Chromatography of RecA Protein and RecA Nucleoprotein Complexes on RecA Protein-Agarose Columns," <i>J. Biol. Chem.</i> 263(36):19525-19534(1988)
	Fujisawa, et al., "Sequence of the T4 recombination gene, <i>UvsX</i> , and its comparison with that of the <i>recA</i> gene of <i>Escherichia coli</i> ", <i>Nucleic Acids Res.</i> , 13:7473 (1985)
	Fujiyama, et al., "Cloning and structural analyses of hepatitis B virus DNAs, subtype <i>adr</i> ", <i>Nucleic Acids Research</i> , 11:4601 (1983)
	Galibert, et al., "Nucleotide sequence of the hepatitis B virus genome (subtype <i>ayw</i> ) cloned in <i>E. coli</i> ", <i>Nature</i> , 281:646 (1979)
	Gamper et al., "Evidence for a Four-Strand Exchange Catalyzed by the RecA Protein," <i>Biochemistry</i> vol. 39: pp. 15272-15281 (2000).
	Ganea, et al., "Characterization of an ATP-Dependent DNA Strand Transferase from Human Cells", <i>Mol. Cell Biol.</i> , 7:3124 (1987)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

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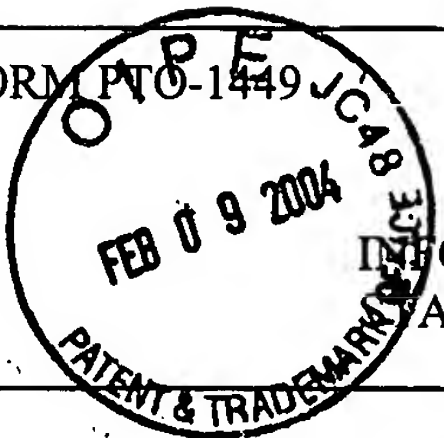
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Golub, et al., "Inhibition of RNA polymerase II transcription by oligonucleotide-RecA protein filaments targeted to promoter sequences", <i>Proc. Natl. Acad. Sci.</i> , USA, vol. 90, pp. 7186-7190, Aug. 1993
	Golub, et al., "Joints Formed by RecA Protein From Oligonucleotides and Duplex DNA Block Initiation and Elongation of Transcription", <i>Nucleic Acids Research</i> , vol. 20, No. 12, pp. 3121-3125, 1992.
	Gonda, et al., "By Searching Processively RecA Protein Pairs DNA Molecules That Share a Limited Stretch of Homology", <i>Cell</i> , 34:647-654 (1983).
	Gonda, et al., "The Mechanism of the Search for Homology Promoted by RecA Protein", <i>The Journal Of Biological Chemistry</i> , vol. 261, No. 28, pp. 13087-13096, Oct. 1986
	Good et al., "Review: Progress in Developing PNA as a Gene-Targeted Drug," <i>Antisense Nucleic Acid Drug Development</i> vol. 7 no. 4: pp. 431-437 (1997).
	Gorman et al., "Site-Specific Gene Targeting for Gene Expression in Eukaryotes," <i>Current Opinion in Biotechnology</i> vol. 11: pp. 455-460 (2000).
	Griffith, et al., "Intercalating Drugs Markedly Affect the Ability to the <i>E. coli</i> RecA Protein to Insert Small Primers into Homologous Duplex DNA," <i>J. Cell Biochem.</i> 13E:287(Suppl.)(1989).
	Griffith, et al., "RecA Protein Rapidly Crystallizes in the Presence of Spermidine: A Variable Step in its Purification and Physical Characterization", <i>Biochemistry</i> , 24:158 (1985)
	Halbrook, et al., "Purification and Characterization of a DNA-pairing and Strand Transfer Activity from Mitotic <i>Saccharomyces cerevisiae</i> ", <i>Journal of Biological Chemistry</i> , 264:21403 (1989)
	Hanvey, et al., "Site-specific inhibition of EcoRI restriction/modification enzymes by a DNA triple helix." <i>Nucleic Acids Res.</i> 18(1):157 (1989)
	Henegariu et al., "Custom Fluorescent-Nucleotide Synthesis as an Alternative Method for Nucleic Acid Labeling," <i>Nature Biotechnology</i> vol. 18: pp. 345-348 (2000).
	Honigberg et al., "The Pairing Activity of Stable Nucleoprotein Filaments Made from recA Protein, Single-Stranded DNA, and Adenosine 5'-( $\gamma$ -Thio)triphosphate," <i>Journal of Biological Chemistry</i> vol. 260 no. 21: pp. 11845-11851 (September 25, 1985).
	Honigberg, et al., "Ability of RecA Protein to Promote a Search for Rare Sequences in Duplex DNA", <i>PNAC</i> , vol. 83, pp. 9586-9590, Dec. 1986
	Hsieh, et al., "Formation of Joint DNA Molecules by Two Eukaryotic Strand Exchange Proteins Does Not Require Melting of a DNA Duplex", <i>J. Biol. Chem.</i> , 264:5089 (1989)
	Hsieh, et al., "Pairing of homologous DNA sequences by proteins: evidence for three-stranded DNA," <i>Genes &amp; Development</i> , 4:1951 (1990).
	Hsieh, et al., "Partial Purification and Characterization of a Recombinase from Human Cells", <i>Cell</i> , 44:885 (1986)
	Hsieh, et al., "The synapsis event in the homologous pairing of DNAs: RecA recognizes and pairs less than one helical repeat of DNA", <i>Proc. Natl. Acad. Sci. USA</i> , 89:6492-6496 (1992)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

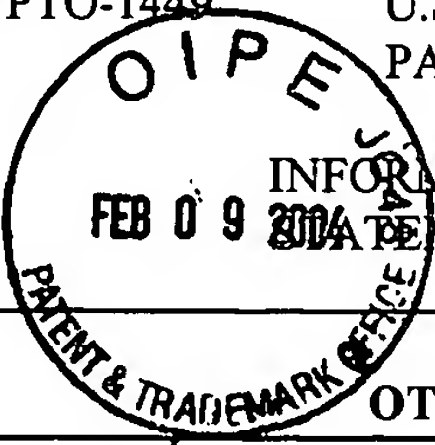
EXAMINER INITIALS	
	Huxley, "Review: Mammalian Artificial Chromosomes: A New Tool for Gene Therapy," <i>Gene Therapy</i> vol. 1 no. 1: pp. 7-12 (1994).
	Hyrup et al., "Review Article: Peptide Nucleic Acids (PNA): Synthesis, Properties and Potential Applications," <i>Bioorganic and Medicinal Chemistry</i> vol. 4 no. 1: pp. 5-23 (1996).
	Izvolksy et al., "Sequence-Specific Protection of Duplex DNA Against Restriction and Methylation Enzymes by Pseudocomplementary PNAs," <i>Biochemistry</i> vol. 39: pp. 10908-10913 (2000).
	Jayasena, et al., "Compliment Stabilized D-loop RecA-catalyzed Stable Pairing of Linear DNA Molecules at Internal Sites", <i>J. Mol. Biol.</i> , pp. 1015-1024 (1993)
	Kato, et al., "RecA Protein From an Extremely Thermophilic Bacterium, <i>Thermus Thermophilus</i> HB8", <i>J. Biochem</i> , vol. 114, pp. 926-929, 1993.
	Kawashima, et al., "Functional Domains of <i>Escherichia coli</i> RecA Protein Deduced From the Mutational Sites in the Gene", <i>Mol. Gen. Genet.</i> , vol. 193, pp. 288-292, 1984.
	Kenne, et al., "A DNA-recombinogenic activity in human cells", <i>Nucleic Acids Research</i> , 12:3057 (1984)
	Kido, et al., " <i>Escherichia coli</i> RecA Protein Modified with a Nuclear Location Signal Binds to Chromosomes in Living Mammalian Cells," <i>Experimental Cell Res.</i> 198:107-114 (1992).
	Kirk et al., "Single Nucleotide Polymorphism Seeking Long Term Association with Complex Disease," <i>Nucleic Acids Research</i> vol. 30 no. 15: pp. 3295-3311 (2002).
	Kirkpatrick, et al., "RecA Protein Promotes Rapid RNA-DNA Hybridization in Heterogeneous RNA Mixtures", <i>Nucleic Acids Research</i> pp. 4347-4353
	Kirkpatrick, et al., "RNA-DNA Hybridization Promoted by <i>E.coli</i> RecA Protein", <i>Nucleic Acid Research</i> , vol. 20, No. 16, pp. 4339-4346, (1992)
	Kmiec, et al., "Homologous Pairing of DNA Molecules by <i>Ustilago</i> Rec1 Is Promoted by Sequences of Z-DNA", <i>Cell</i> , 29:367-374 (1986)
	Kmiec, et al., "Homologous Pairing of DNA Molecules Promoted by a Protein from <i>Ustilago</i> ", <i>Cell</i> , vol. 29 pp. 367-374 (1982).
	Kmiec, et al., "Homologous Pairing Promoted by <i>Ustilago</i> Protein", <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , Volume XLIX, 675-679, (1984)
	Kmiec, et al., "Synapsis Promoted by <i>Ustilago</i> Rec1 Protein", <i>Cell</i> , vol. 36, pp. 593-598, Mar. 1984
	Knight et al., "Tyrosine 264 in the recA Protein from <i>Escherichia coli</i> Is the Site of Modification by Photoaffinity Label 8-Azidoadenine", <i>J. Biol. Chem.</i> 260 (18):10185-91, Aug. 25, 1985
	Kokoris et al., "High-Throughput SNP Genotyping with the Masscode System," <i>Molecular Diagnosis</i> vol. 5 no. 4: pp. 329-340 (2000).
	Kolodner, et al., "Purification and characterization of an activity from <i>Saccharomyces cerevisiae</i> that catalyzes homologous pairing and strand exchange", <i>Proc. Natl. Acad. Sci. USA</i> , 84:5560 (1987)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.



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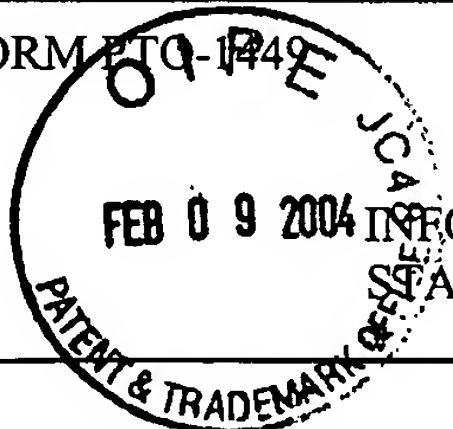
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Koob, et al., "RecA-AC: single-site cleavage of plasmids and chromosomes at any predetermined restriction site", <i>Nucleic Acids Research</i> , vol. 20, No. 21, pp. 5831-5836, 1992.
	Kowalczykowski, et al., "DNA-strand exchange promoted by RecA protein in the absence of ATP: Implications for the mechanism of energy transduction in protein-promoted nucleic acid transactions", <i>Proc. Natl. Acad. Sci. USA</i> , vol. 92, pp.3478-3482
	Kowalczykowski, Stephen C., "Biochemistry of Genetic Recombination: Energetics and Mechanism of DNA Strand Exchange," <i>Annu. Rev. Biophys. Chem.</i> , vol. 20, pp. 539-575 (1991).
	Kricka et al., "Comparison of 5-Hydroxy-2, 3-Dihydrophthalazine-1, 4-Dione and Luminol as Co-Substrates for Detection of Horseradish Peroxidase in Enhanced Chemiluminescent Reactions," <i>Journal of Immunoassay</i> vol. 17 no. 1: pp. 67-83 (1996).
	Kuramitsu, et al., "A Large-Scale Preparation and Some Physiochemical Properties of RecA Protein", <i>J. Biochem</i> , vol. 90, pp. 1033-1045, 1981.
	Kwok, Pui-Yan, "Methods for Genotyping Single Nucleotide Polymorphisms," <i>Annu. Rev. Genomics Hum. Genet.</i> vol. 2: pp. 235-258 (2001).
	Lander et al., "The Chipping Forecast," Supplement to <i>Nature Genetics</i> vol. 21 no. 1: pp. 1-60 (January 1999).
	Langer et al., "A Genetic Screen Identifies Novel Non-Compatible <i>IoxP</i> Sites," <i>Nucleic Acids Research</i> vol. 30: pp. 3067-3077 (2002).
	Larin et al., "Review: Advances in Human Artificial Chromosome Technology," <i>Trends in Genetics</i> vol. 18 no. 6: pp. 313-319 (2002).
	Lawrence, et al., "A Fluorescence In Situ Hybridization Approach for Gene Mapping and the Study of Nuclear Organization", <i>Genome Analysis</i> , 1:1 (1990)
	Leahy, et al., "Topography of the Interaction of recA Protein with Single-stranded Deoxyoligonucleotides," <i>J. Biol. Chem.</i> , 261:6954 (1986).
	Lohse et al., "Double Duplex Invasion by Peptide Nucleic Acid: A General Principle for Sequence-Specific Targeting of Double-Stranded DNA," <i>Proc. Natl. Acad. Sci. USA</i> vol. 96 no. 21: pp. 11804-11808 (October 12, 1999).
	Lovett, et al., "Purification of a RecA Protein Analogue from <i>Bacillus subtilis</i> ," <i>J. Biol. Chem.</i> , vol. 260, No. 6 pp. 3305-3313 (1985)
	Lowenhaupt, et al., " <i>Drosophila melanogaster</i> Strand Transferase", <i>J. Biol. Chem.</i> , 264:20568 (1989)
	Lundqvist et al., "Influence of Different Luminols on the Characteristics of the Chemiluminescence Reaction in Human Neutrophils," <i>J. Biolumin. Chemilumin.</i> vol. 10 no. 6: pp. 353-359 (1995).
	Madiraju et al., "Properties of a Mutant <i>recA</i> -Encoded Protein Reveal a Possible Role for <i>Escherichia Coli recF</i> -Encoded Protein in Genetic Recombination," <i>Proc. Natl. Acad. Sci. USA</i> vol. 85 no. 18: pp. 6592-6596 (1988).
	Maher III, et al., "Inhibition of DNA Binding Proteins by Oligonucleotide-Directed Triple Helix Formation," <i>Science</i> 245:725-730 (1989).

EXAMINER

DATE CONSIDERED

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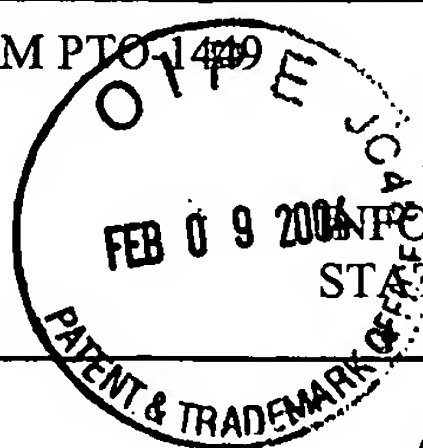
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Makino, et al., "Monoclonal Antibodies with Specific Effects on Partial Activities of recA Protein of <i>Escherichia coli</i> ", <i>J. Biol. Chem.</i> , 260, 15402, 1985
	McCarthy, et al., "Sensitive homologous recombination strand-transfer assay: Partial purification of a <i>Drosophila melanogaster</i> enzyme and detection of sequence effects on the strand-transfer activity of RecA protein", <i>Proc. Natl. Acad. Sci. USA</i> , 85:5854 (1988)
	McEntee, et al., "Binding of the recA Protein of <i>Escherichia coli</i> to Single- and Double-Stranded DNA", <i>J. Biol. Chem.</i> , 256:8835-8844 (1981)
	Menetski, et al., "Enhancement of <i>Escherichia coli</i> RecA Protein Enzymatic Function by dATP," <i>Biochem.</i> 28:5871-5881 (1989)
	Moore, et al., "Purification and Characterization of a Protein from Human Cells Which Promotes Homologous Pairing of DNA", <i>J. Biol. Chem.</i> , 19:11108-11117 (1990)
	Moreau, et al., "Rec-A Protein-promoted Cleavage of Lex-A Repressor in the Presence of ADP and Structural Analogues of Inorganic Phosphate, the Fluoride Complexes of Aluminum and Beryllium", <i>J. Biol. Chem.</i> , 264:2302-2306 (1989)
	Morrical, et al., "Stabilization of recA Protein-ssDNA Complexes by the Single-Stranded DNA Binding Protein of <i>Escherichia coli</i> ", <i>Biochemistry</i> , 29:837 (1990)
	Moser, et al., "Sequence-Specific Cleavage of Double helical DNA by Triple Helix Formation", <i>Science</i> 238:645-650 (1987)
	Nielsen et al., "An Introduction to Peptide Nucleic Acid," <i>Current Issues in Molecular Biology</i> vol. 1 no. 2: pp. 89-104 (1999).
	Nielsen et al., "Peptide Nucleic Acids: On the Road to New Gene Therapeutic Drugs," <i>Pharmacology and Toxicology</i> vol. 86: pp. 3-7 (2000).
	Nielsen, "DNA Analogues with Nonphosphodiester Backbones," <i>Annu. Rev. Biophys. Biomol. Struct.</i> vol. 24: pp. 167-183 (1995).
	Nielsen, "Peptide Nucleic Acid: A Versatile Tool in Genetic Diagnostics and Molecular Biology," <i>Current Opinion in Biotechnology</i> vol. 12 no. 1: pp. 16-20 (2001).
	Nielsen, "Targeting Double Stranded DNA with Peptide Nucleic Acid (PNA)," <i>Current Medicinal Chemistry</i> vol. 8 no. 5: pp. 545-550 (2001).
	Norden et al., "Base Orientation of Second DNA in Rec-A-DNA Filaments", <i>The Journal of Biological Chemistry</i> , 273(25): 15682-15686 (1998)
	Peterson et al., "Transgenic Mice Containing a 248-Kb Yeast Artificial Chromosome Carrying the Human Beta-Globin Locus Display Proper Developmental Control of Human Globin Genes," <i>Proc. Natl. Acad. Sci. USA</i> vol. 90 no. 16: pp. 7593-7597 (August 15, 1993).

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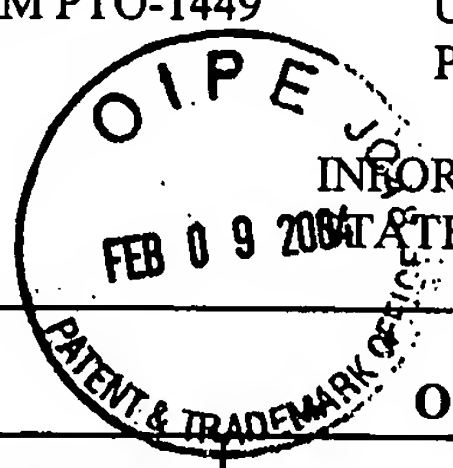
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Peterson et al., "Use of Yeast Artificial Chromosomes (Yacs) for Studying Control of Gene Expression: Correct Regulation of the Genes of a Human Beta-Globin Locus YAC Following Transfer to Mouse Erythroleukemia Cell Lines," <i>Proc. Natl. Acad. Sci. USA</i> vol. 90 no. 23: pp. 11207-11211 (December 1, 1993).
	Podyminogin, et al., "Sequence-Specific Covalent Modification of DNA by Cross-Linking Oligonucleotides. Catalysis by RecA and Implication for the Mechanism of Synaptic Joint Formation", <i>Biochemistry</i> , vol. 34, pp. 13098-13108, 1995
	Pusch et al., "MALDI-TOF Mass Spectrometry-Based SNP Genotyping," <i>Pharmacogenomics</i> vol. 3 no. 4: pp. 537-548 (2002).
	Radding, Charles M., "Helical Interactions in Homologous Pairing and Strand Exchange Driven by RecA Protein", <i>The Journal of Biological Chemistry</i> , vol. 266, No. 9, pp. 5355-5358, Mar. 1991.
	Radding, Charles M., "Helical RecA Nucleoprotein Filaments Mediate Homologous Pairing and Strand Exchange", <i>Biochem. Biophys. Acta.</i> , 1008 (1989), pp. 131-145.
	Radding, et al., "Homologous Pairing and Strand Exchange in Genetic Recombination." <i>Ann. Rev. Genet.</i> 16:405 (1983) 25:1990.
	Revet, et al., "Homologous DNA Targeting with RecA Protein-coated Short DNA Probes with Electron Microscope Mapping on Linear Duplex Molecules", <i>J. Mol. Biol.</i> , vol. 232, pp. 779-791, 1993
	Rigas, et al., "Rapid Plasmid Library Screening Using RecA Coated Biotinylated Probes", <i>PNAC</i> , vol. 83, pp. 9591-9595, Dec. 1986
	Roca, et al., "The RecA Protein: Structure and Function," <i>Crit. Rev. Biochem. Molec. Biol.</i> 25:415 (1990).
	Roche Diagnostics GmbH, "Classical Structural Genomics," <a href="http://www.roche-applied-science.com/usa/3327175B.pdf">http://www.roche-applied-science.com/usa/3327175B.pdf</a>
	Roche Diagnostics GmbH, "recA Protein," Cat. No. 1 449 567, Cat. No. 1 449 575, Version 3 (September 1999).
	Sena, et al., "Targeting in Linear DNA Duplexes With Two Complementary Probe Strands for Hybrid Stability", <i>Nature Genetics</i> , vol. 3, pp. 365-372 (1993)
	Shah et al., "Multiple <i>BCR-ABL</i> Kinase Domain Mutation Confer Polyclonal Resistance to the Tyrosine Kinase Inhibitor Imatinib (STI571) in Chronic Phase and Blast Crisis Chronic Myeloid Leukemia," <i>Cancer Cell</i> vol. 2: pp. 117-125 (August 2002).
	Shibata et al., "Homologous Genetic Recombination as an Intrinsic Dynamic Property of a DNA Structure Induced by RecA/Rad51-Family Proteins: A Possible Advantage of DNA over RNA as Genomic Material," <i>Proc. Natl. Acad. Sci. USA</i> vol. 98 no. 15: pp. 8425-8432 (July 17, 2001).
	Shibata, et al., "Purification of RecA Protein From <i>Escherichia coli</i> ", <i>Method in Enzymology</i> , vol. 100, pp. 197-209.
	Shibata, et al., "Purified <i>Escherichia coli</i> recA Protein catalyzed homologous pairing of superhelical DNA and single-stranded fragments." <i>Proc. Natl. Acad. Sci. USA</i> 76:1638 (1979).
	Shibata, T., et al., "Homologous Pairing in Genetic Recombination", <i>J. Bio. Chem.</i> , 256:7557 (1981)

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DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Shinohara et al., "Rad51/RecA Protein Families and the Associated Proteins in Eukaryotes," <i>Mutation Research</i> vol. 435: pp. 13-21 (1999).
	Shinohara, et al., "Cloning of Human, Mouse and Fission Yeast Recombination Genes Homologous to RAD51 and RecA", <i>Nature Genetics</i> , vol. 4, pp. 239-243, Jul. 1993.
	Shoemaker et al., "Quantitative Phenotypic Analysis of Yeast Deletion Mutants Using a Highly Parallel Molecular Bar-Coding Strategy," <i>Nature Genetics</i> vol. 14 no. 4: pp. 450-456 (1996).
	Sluka, et al., "Synthesis of a Sequence-Specific DNA-Cleaving Peptide", <i>Science</i> , 238:1129 (1987)
	Sugino, et al., "ATP-independent DNA strand transfer catalyzed by protein(s) from meiotic cells of the yeast <i>Saccharomyces cerevisiae</i> ", <i>Proc. Natl. Acad. Sci. USA</i> , 85:3683, (1988)
	Syvänen, Ann-Christine, "Accessing Genetic Variation: Genotyping Single Nucleotide Polymorphisms," <i>Nature: Reviews</i> vol. 2: pp. 930-942 (December 2001).
	Szybalski, Wacław, "RecA-Mediated Achilles' Heel Cleavage," <i>Current Opinion in Biotechnology</i> vol. 8: pp. 75-81 (1997).
	Teintze, et al., RecA Assisted Rapid Enrichment of Specific Clones From Model DNA Libraries, <i>Biochemical and Biophysical Research Communications</i> , vol. 211, No. 3, pp. 804-811, Jun. 26, 1995.
	Thorpe et al., "Enhanced Chemiluminescent Reactions Catalyzed by Horseradish Peroxidase," <i>Methods in Enzymology</i> vol. 133: pp. 331-353 (1986).
	Tsang, et al., "Networks of DNA and RecA Protein Are Intermediates in Homologous Pairing", <i>Biochemistry</i> , vol. 24, pp. 3226-3232, 1985
	Usher et al., "Targeting of a Chimeric Oligonucleotide to dsDNA for Site-Specific Gene Repair," <i>FAESB Journal</i> vol. 15 no. 4: Abstract No. 435.2, p. A518 (March 2001).
	Yoshimura et al., "Cloning and Sequence of the Human RecA-like Gene cDNA," <i>Nucleic Acids Research</i> vol. 21 no. 7: p. 1665 (1993).

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